Lake Iamonia Lake Vegetation Index Results (9-9-2014)

The Lake Vegetation Index (LVI) is a multimetric index that evaluates how closely a lake's plant community resembles one that would be expected in a condition of minimal human disturbance. It is based on a rapid field assessment of aquatic and wetland plants as indicators of various effects of human disturbance over time. Plants respond to physical disturbances such as introduction of exotic species or lakeshore alterations, and chemical disturbance such as introduction of excess nutrients, particulates, or herbicides from the surrounding land uses.

The LVI method is performed from a boat, and involves dividing a lake into 12 units and identifying plants in 4 of the 12 units. Plants are identified in the selected unit by a visual boat "drive by" and also via a transect approach. The resulting data is used to calculate the LVI and is evaluated according to the scoring system in Table 1.

TABLE 1. Category names, ranges of values for LVI, and example descriptions of biological conditions typically found for that category.

Aquatic life use category	LVI Range	Description
Exceptional	78–100	Nearly every plant present is a species native to Florida, invasive taxa typically not found. About 30% of taxa present are identified as sensitive to disturbance.
Healthy	43–77	About 85% of plant taxa are native to Florida; invasive taxa present. Sensitive taxa have declined to about 15%.
Impaired	0–42	About 70% of plant taxa are native to Florida. Invasive taxa may represent up to 1/3 of total taxa. Less that 10% of the taxa are sensitive.

The Lake Vegetation Index score for Lake Iamonia was 62, placing the lake's vegetative community in the healthy category.

Sixty four species were found during the survey. The native species, fragrant waterlily (*Nymphaea odorata*), was the most dominant species in the lake. Other native vegetation included; fanwort (*Cabomba caroliniana*), maidencane (*Panicum hemitomon*), buttonbush (*Cephalanthus occidentalis*) and red maple (*Acer rubrum*).

Unfortunately, Chinese tallow tree (*Sapium sebiferum*), water hyacinth (*Eichhornia crassipes*), water spangles (*Salvinia minima*), and hydrilla (*Hydrilla verticillata*), all listed as Category I Invasive Exotics by the Florida Exotic Pest Plant Council, were found in Lake Iamonia. Alligator weed (*Alternanthera philoxeroides*) is a Category II Invasive Exotic found in the lake. Additionally, the exotic Indian jointvetch (*Aeschynomene indica*) was also found in and near the lake.

For a complete list of plants found during the LVI survey, please see Table 2.

TABLE 2. Scientific and common names of the plants identified during the Lake Iamonia LVI survey (9-9-14).

Scientific Name	Common Name
Acer rubrum	red maple
Aeschynomene indica	Indian jointvetch
Alternanthera philoxeroides(II)	alligator weed
Ampelopsis arborea	peppervine
Bidens laevis	smooth beggartick
Bidens mitis	smallfruit beggartick
Boehmeria cylindrica	false nettle
Brasenia schreberi	watershield
Cabomba caroliniana	fanwort
Campsis radicans	trumpet vine
Cephalanthus occidentalis	buttonbush
Cyperus odoratus	fragrant flatsedge
Cyrilla racemiflora	swamp titi
Decodon verticillatus	swamp loosestrife
Diospyros virginiana	common persimmon
Echinochloa walteri	coast cockspur grass
Eichhornia crassipes (I)	water hyacinth
Eleocharis baldwinii	road-grass
Eupatorium capillifolium	dogfennel
Eupatorium sp.	Eupatorium
Fuirena pumila	dwarf umbrella sedge
Hibiscus moscheutos	crimson-eyed rosemallow
Hydrilla verticillata (I)	hydrilla
Hydrocotyle sp.	water pennywort
Hydrolea quadrivalvis	waterpod
Juncus repens	lesser creeping rush
Leersia hexandra	southern cutgrass
Lemna minor	common duckweed
Limnobium spongia	frog's bit
Liquidamber styraciflua	American sweetgum
Ludwigia arcuata	needleleaf Ludwigia
Ludwigia leptocarpa	anglestem primrose willow
Luziola fluitans	southern watergrass
Lycopus rubellus	taperleaf water horehound
Mikania scandens	climbing hempvine
Nelumbo lutea	American lotus
Nuphar sp.	spatterdock
Nymphaea odorata	fragrant waterlily
Nymphoides aquatica	banana lilly

Nyssa aquatica	water tupelo
Nyssa sylvatica var. *biflora*	swamp tupelo
Panicum hemitomon	maidencane
Polygonum hirsutum	hairy smartweed
Polygonum punctatum	dotted smartweed
Pontederia cordata	pickerelweed
Quercus virginiana	southern live oak
Rhynchospora inundata	narrowfruit horned beaksedge
Rhynchospora scirpoides	bald rush
Ricciocarpus natans	purple-fringed Riccia
Sacciolepis striata	American cupscale-grass
Sagittaria lancifolia	duck potato
Sagittaria latifolia	broadleaf arrowhead
Salix carolina	coastal plain willow
Salvinia minima(I)	water spangles
Sapium sebiferum(I)	Chinese tallow tree
Scirpus cubensis	burhead sedge
Scirpus cyperinus	woolgrass
Sesbania herbacea	bigpod Sesbania
Smilax laurifolia	laurelleaf greenbrier
Taxodium ascendens	pond cypress
Triadenum virginicum	marsh St. John's wort
Utricularia biflora (U. gibba)	humped bladderwort
Utricularia foliosa	leafy bladderwort
Utricularia purpurea	eastern purple bladderwort
Xyris jupicai	Richard's yellow-eyed grass

I - Category I Invasive Exotics
II - Category II Invasive Exotics

For additional information about the LVI please review the Florida Department of Environmental Protection's LVI Primer document.

For more detailed information about the above species, please visit the Atlas of Florida Vascular Plants website.

For additional information about Category I and II invasive exotic plants, please visit the Florida Exotic Pest Plant Council webpage.